

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A LCD device comprising:

a first substrate on which pixels are arranged;

a second substrate coupled to the first substrate with a sealing member in such a way as to form a gap between the first and second substrates;

a liquid-crystal layer formed in the gap, the liquid crystal layer being confined by the sealing member; and

spacers arranged in the liquid-crystal layer;

wherein the first substrate has a display region for displaying images, the display region being defined to include the pixels;

and wherein the first substrate has a non-display region formed outside the display region, the non-display region being located between the display region and the sealing member;

and wherein the spacers are located in a first part of the liquid-crystal layer corresponding to the display region while none of the spacers ~~being~~ are located in a second part of the liquid-crystal layer corresponding to the non-display region.
2. (canceled).

3. (canceled).
4. (currently amended): The device according to claim 1, further comprising a depression formed on an inner surface of the first or second substrate;
wherein the depression is located in the second part of the liquid-crystal layer, ~~thereby forming a step between the display region and the non-display region;~~
and wherein the depression constitutes a buffer space for receiving extra liquid crystal.
5. (original): The device according to claim 4, wherein TFTs are arranged on the first substrate in such a way as to be electrically connected to the respective pixels, and a dielectric layer is formed on the first substrate to cover the TFTs and the pixels;
and wherein the depression is formed in the dielectric layer.
6. (original): The device according to claim 4, wherein a dielectric layer is formed on the second substrate;
and wherein the depression is formed in the dielectric layer.
7. (currently amended): The device according to claim 4, wherein one of the first and second substrates comprises a transparent plate ~~having a depressed~~ and the depression is formed part on its an inner surface of the plate;

~~and wherein the depression is formed by using the depressed part of the plate.~~

8. (currently amended): The device according to claim 1, wherein when the non-display region has a width L (μm) and the gap in the display region has an average value d (μm), the depression has a height H satisfying a relationship of

$$H \geq (1/2) \times (1000 + L) \times [0.02d + \underline{[L \times (0.02d/1000)] [L \times (0.02d/1000)]}] / L \text{ (}\mu\text{m)}.$$

9. (original): The device according to claim 1, wherein the spacers are pole-shaped and formed on one of the first and second substrates.

10. (new): The device according to claim 4 wherein the depression forms a step between the display region and the non-display region.

11. (new): A method of forming an LCD device comprising:
providing a first substrate on which pixels are arranged;
providing a second substrate;
wherein the first substrate has a display region for displaying images, which is defined to include the pixels, and a non-display region formed outside the display region;
and wherein the second substrate includes a region to be coupled to the first substrate corresponding to the display region and a region to be coupled to the first substrate corresponding to the non-display region;

providing spacers on an inner surface of at least one of said first and second substrates in an area corresponding to the display region;

providing a sealing member on at least one of said first and second substrates in an area corresponding to the non-display region;

placing the first substrate and the second substrate together so that the inner surfaces of said first and second substrate face each other and contact said sealing member;

compressively deforming the sealing member to approximately the same height as said spacers;

injecting liquid crystal into a gap between the inner surface of said first substrate and the inner surface of said second substrate.

12. (new): The method of claim 11 wherein the sealing member is compressively deformed by applying a pressing force uniformly over the whole of the first and second substrates.

13. (new): The method of claim 11 wherein the sealing member is compressively deformed by applying a pressing force using a pair of surface plates.

14. (new): The method of claim 11 wherein gas in the gap between the first substrate member and the second substrate member is removed to create a pressure difference between the gap and the atmosphere outside the gap and the pressure difference causes the sealing member to be compressively deformed.

15. (new): The method of claim 11 further comprising applying a pressing force to the first and second substrates after the liquid crystal has been injected into the gap, whereby excess liquid crystal is removed from the gap.

16. (new): The method of claim 11 further comprising forming a depression on an inner surface of at least one of the first and second substrates in an area corresponding to the non-display region.

17. (new): The method of claim 11 further comprising providing an in-seal spacer in said sealing member.

18. (new): A method of forming an LCD device comprising:
providing a first substrate on which pixels are arranged;
providing a second substrate;
wherein the first substrate has a display region, for displaying images, which is defined to include the pixels and a non-display region formed outside the display region;
and wherein the second substrate includes a region to be coupled to the first substrate corresponding to the display region and a region to be coupled to the first substrate corresponding to the non-display region;
providing spacers on an inner surface of at least one of said first and second substrates in an area corresponding to the display region;

providing no spacers on the inner surfaces of the first and second substrates in an area corresponding to the non-display region;

providing a sealing member on at least one of said first and second substrates in an area corresponding to the non-display region;

depositing liquid crystal on the inner surface of one of said first and second substrates;

bringing the first substrate and the second substrate together in a substantially vacuum atmosphere so that inner surfaces of said first and second substrate face each other and contact said sealing member;

removing said first and second substrates from the substantially vacuum atmosphere so that they are subjected to a pressing force by an atmospheric pressure wherein said sealing member is compressed to approximately the same height as the spacers.

19. (new): The method of claim 18 further comprising forming a depression on an inner surface of at least one of the first and second substrates corresponding to the non-display region.

20. (new): The method of claim 18 further comprising providing an in-seal spacer in said sealing member.